DECISION
AND
FINDING OF NO SIGNIFICANT IMPACT

ENVIRONMENTAL ASSESSMENT – REDUCING CANADA GOOSE DAMAGE THROUGHOUT THE STATE OF MISSISSIPPI

I. INTRODUCTION

The United States Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Wildlife Services (WS) program prepared an Environmental Assessment (EA) entitled "*Reducing Canada Goose Damage throughout the State of Mississippi*" to analyze the potential environmental and social impacts to the quality of the human environment from resolving damage and threats associated with Canada geese to agricultural resources, property, natural resources, and human safety in Mississippi. The EA documents the need for goose damage management in Mississippi and assesses potential impacts on the human environment of four alternatives to address that need. WS' proposed action in the EA would implement an integrated damage management program to fully address the need to manage goose damage while minimizing impacts to the human environment.

The EA was prepared to: 1) facilitate planning and interagency coordination, 2) streamline program management, 3) evaluate the potential environmental consequences of the alternatives related to the issues of managing damage caused by geese, and 4) clearly communicate to the public the analysis of individual and cumulative impacts. This Decision ensures WS' actions comply with NEPA, with the Council on Environmental Quality (40 CFR 1500), and with APHIS' NEPA implementing regulations (7 CFR 372). All goose damage management activities, including disposal requirements, are conducted consistent with: 1) the Endangered Species Act of 1973, 2) Migratory Bird Treaty Act, 3) Executive Order (EO) 12898[1], 4) EO 13045[2], 5) EO 13186[3], 6) the Federal Insecticide, Fungicide, and Rodenticide Act, and 7) federal, state, and local laws, regulations and policies. The pre-decisional EA was made available to the public for review and comment through notices published in local media and through direct notification of interested parties. Comments from the public involvement process were reviewed for substantive issues and alternatives which were considered in developing this Decision for the EA.

WS is authorized by law to reduce damage caused by wildlife through the Act of March 2, 1931 (46 Stat. 1468; 7 U.S.C. 426-426b), as amended and the Act of December 22, 1987 (101 Stat. 1329-331, 7 U.S.C. 426c). Wildlife damage management is the alleviation of damage caused by or related to the presence of wildlife and is regarded as an integral part of wildlife management (The Wildlife Society 1992). The goal of wildlife damage management conducted by WS is to respond to requests for assistance to manage damage and threats to human safety caused by wildlife.

II. PUBLIC INVOLVEMENT

The pre-decisional EA was prepared and released to the public during a 30-day comment period through legal notices published for three consecutive days in the *Clarion Ledger* beginning on January 21, 2008. A notice of availability and the pre-decisional EA were also posted on the APHIS website at

[1] Executive Order 12898 promotes the fair treatment of people of all races, income levels, and cultures with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.

[2] Executive Order 13045 ensures the protection of children from environmental health and safety risks since children may suffer disproportionately from those risks.

[3] Executive Order 13186 directs federal agencies to protect migratory birds and strengthen migratory bird conservation by identifying and implementing strategies that promote conservation and minimize the take of migratory birds through enhanced collaboration. A national-level MOU between the USFWS and WS is being developed to facilitate the implementation of Executive Order 13186.

http://www.aphis.usda.gov/wildlife_damage/nepa.shtml for 30 days for review and comment. A letter of availability was also mailed directly to agencies, organizations, and individuals with probable interest in goose damage management in Mississippi. WS received one comment letter during the public involvement period. WS' responses to comments received are attached in Appendix A. All documents associated with the public involvement period are maintained at the WS' state office in Mississippi.

III. MONITORING

The WS' program will annually review goose damage management activities in Mississippi to ensure WS' actions are within the scope of analyses provided in the EA. Those annual monitoring reports will document WS' activities while discussing any new information that becomes available since the completion of the EA and the last monitoring report. If WS' activities, as identified in the annual monitoring reports, are outside the scope of the analyses in the EA or if new issues are identified from available information, further analyses would occur and to the degree as identified by those processes pursuant to NEPA.

IV. AFFECTED ENVIRONMENT

Areas of the proposed action could include, but are not limited to, golf courses, athletic fields, recreational areas, swimming beaches, parks, corporate complexes, subdivisions, business parks, industrial parks, schools, agricultural areas, wetlands, restoration sites, and cemeteries. The area of the proposed action would also include airports and military airbases where geese are a threat to human safety and to property and public areas where geese are negatively impacting historic areas, cultural landscapes, and natural resources. The proposed action may be conducted on properties held in private, municipal, county, state, or federal ownership.

V. MAJOR ISSUES

The EA describes in detail the issues considered and evaluated. In addition to the identified major issues considered in detail, five issues were considered but not in detail, with rationale provided in the EA. The following issues were identified as important to the scope of the analysis (40 CFR 1508.25).

Issue 1 - Effects on Canada Goose Populations

Under the proposed action, WS would incorporate non-lethal and lethal methods in an integrated approach in which all or a combination of methods may be employed to resolve a request for assistance. WS would recommend both non-lethal and lethal methods to interested individuals, as governed by federal, state, and local laws and regulations. Non-lethal methods can disperse or otherwise make an area unattractive to geese causing damage thereby, reducing the presence of geese at the site and potentially the immediate area around the site. Non-lethal methods would be given priority when addressing requests for assistance. However, non-lethal methods would not necessarily be employed to resolve every request for assistance if deemed appropriate by WS' personnel or cooperating entities.

The use of lethal methods would result in local reductions of those geese targeted in the area where damage or threats were occurring. The number of geese removed from areas where damage management activities are employed under the proposed action would be dependent on the number of requests for assistance received, the number of geese involved with the associated damage or threat, and the efficacy of methods employed. Based upon past requests for WS' assistance and an anticipated increase in future requests for assistance, WS anticipates that no more than 4% (currently 1,140 birds) of the resident Canada goose population and fewer than 100 migrant geese would likely be taken by WS in Mississippi annually under the proposed action. The EA concluded that WS' activities when conducted within the

scope analyzed would not adversely impact populations of target species.

Issue 2 – Effectiveness of Damage Management Methods

An issue often raised is the effectiveness of methods employed to resolve and prevent damage or threats to human safety associated with Canada geese. WS' evaluated the effectiveness of methods available under each of the alternatives in the EA. The analyses in the EA indicates the proposed action would allow for the most effective use of methods by allowing for the employment of those methods individually or in combination to achieve the effectiveness desired by the requestor. The proposed action in the EA addresses the integration of methods to reduce habituation, to increase the effectiveness of individual methods, to maximize effectiveness collectively of methods, and to allow for the successful reduction or prevention of damage.

The other alternatives restrict the methods available for use which further reduces the effectiveness of individual methods and prevents the use of methods that could be effective in reducing or preventing damage. By allowing an integration of non-lethal and lethal methods under the proposed action, those methods most effective to prevent or reduce damage are available. The proposed action also allows for the adaption of methods to the damage situation where types of methods are employed but are not successful at reducing or preventing damage. For example, allowing for an adaptive integrated approach to managing damage provides opportunities to evaluate methods after employment to determine effectiveness and to employ additional methods if a reduction in damage is not adequate for the requestor.

The EA further indicates that the objective of all methods is to reduce damage or prevent damage from occurring. All methods addressed in the EA are intended to exclude geese from an area where damage is occurring or could occur, to disperse or remove geese causing damage, or to otherwise make the area where damage is occurring unattractive through modification of habitat. Therefore, effectiveness can be defined by the amount of time required to achieve the desired result and the duration for which the desired result is maintained once methods are no longer employed or maintained. The proposed action allows for the use of the widest range of methods to allow for the most effective methods to be employed to achieve the desired results in a timely manner and for the longest duration.

Issue 3 – Effects on Aesthetic Values

As analyzed in the EA, WS would employ methods when requested that would result in the dispersal, exclusion, or removal of individuals or small groups of geese to resolve damage and threats. In some instances where geese are dispersed or removed, the ability of interested persons to observe and enjoy those geese would likely decline temporarily. The presence of geese in areas where geese were dispersed will likely increase upon cessation of damage management activities.

Even the use of exclusionary devices can lead to dispersal of geese if the resource being damaged was acting as an attractant. Thus, once the attractant has been removed or made unavailable, geese will likely disperse to other areas where resources are more vulnerable.

The use of lethal methods would result in temporary declines in local populations resulting from the removal of those geese responsible for causing damage that resulted in a request for assistance. WS' goal is to respond to requests for assistance and to manage only those geese responsible for the resulting damage. Therefore, the removal of geese would result in localized declines. However, the overall populations of those target species would be not be impacted. Based on the localized decline in the presence of geese, the EA concluded the effects on aesthetics would be variable depending on the stakeholders' values towards wildlife. However, the ability to view and enjoy geese in Mississippi would still remain if a reasonable effort is made to locate geese outside the area in which damage management

activities occurred.

Issue 4 – Humaneness and Animal Welfare Concerns of Methods used by WS

As analyzed in the EA, humaneness, in part, appears to be a person's perception of harm or pain inflicted on an animal. People may perceive the humaneness of an action differently. The challenge in coping with this issue is how to achieve the least amount of animal suffering within the constraints imposed by current technology and funding.

Some individuals believe any use of lethal methods to resolve damage associated with wildlife is inhumane because the resulting fate is the death of the animal. Others believe that certain lethal methods can lead to a humane death. Others believe most non-lethal methods of capturing wildlife to be humane because the animal is generally unharmed and alive. Still others believe that any disruption in the behavior of wildlife is inhumane. With the multitude of attitudes on the meaning of humaneness, the analyses must consider the most effective way to address damage and threats caused by wildlife in a humane manner. WS is challenged with conducting activities and employing methods that are perceived to be humane while assisting those persons requesting assistance to manage damage and threats associated with wildlife. The goal of WS is to use methods as humanely as possible to effectively resolve requests for assistance to reduce damage and threats to human safety. WS continues to evaluate methods and activities to minimize the potential pain and suffering of those methods when attempting to resolve requests for assistance.

As mentioned previously, some methods have been stereotyped as "humane" or "inhumane". However, many "humane" methods can be inhumane if not used appropriately. For instance, a cage trap is generally considered by most members of the public as "humane". Yet, without proper care, live-captured wildlife in a cage trap can be treated inhumanely if not attended to appropriately.

Therefore, WS' mission is to effectively address requests for assistance using methods in the most humane way possible that minimizes the stress and pain of the animal. WS' personnel are experienced and professional in their use of management methods and methods are applied as humanely as possible.

Issue 5 – Effects on Non-target Wildlife Species Populations, Including Threatened and Endangered Species

The issue of non-target species effects, including effects on threatened and endangered species arises from the use of non-lethal and lethal methods identified in the alternatives. The use of non-lethal and lethal methods has the potential to inadvertently disperse, capture, or kill non-target wildlife. WS' minimization measures and SOPs are designed to reduce the effects of goose damage management activities on non-target species' populations. To reduce the risks of adverse affects to non-target wildlife, WS selects damage management methods that are as target-selective as possible or applies such methods in ways that reduces the likelihood of capturing non-target species. Before initiating management activities, WS also selects locations which are extensively used by the target species and employs baits or lures which are preferred by those species. Despite WS' best efforts to minimize non-target take during program activities, the potential for adverse affects to non-targets exists when applying both non-lethal and lethal methods to manage damage or reduce threats to safety.

Non-lethal methods have the potential to cause adverse affects on non-targets primarily through exclusion, harassment, and dispersal. Any exclusionary device erected to prevent access of target species also potentially excludes species that are not the primary reason the exclusion was erected. Therefore, non-target species excluded from areas may potentially be adversely impacted if the area excluded is large enough. The use of auditory and visual dispersal methods used to reduce damage or threats caused

by target species are also likely to disperse non-targets in the immediate area the methods are employed. Therefore, non-targets may be dispersed from an area while employing non-lethal dispersal techniques. However, like target species, the potential impacts on non-target species are expected to be temporary with target and non-target species often returning after the cessation of dispersal methods.

The lethal take of non-targets from using those methods described in the EA is unlikely with take never reaching a magnitude that a negative impact on populations would occur. Any potential non-targets live-captured using non-lethal methods would be handled in such a manner as to ensure the survivability of the animal if released. The potential adverse affects associated with non-lethal methods are negligible and, in the case of exclusion and harassment methods, often temporary. The use of firearms is selective for target species since animals are identified prior to application; therefore no adverse impacts are anticipated from use of this method. The use of chemical methods, when used according to label directions, poses minimal hazards to non-target wildlife (USDA 1997).

While every precaution is taken to safeguard against taking non-targets during operational use of methods and techniques for resolving damage and reducing threats caused by wildlife, the use of such methods can result in the incidental take of unintended species. Those occurrences are minimal and should not affect the overall populations of any species. WS' take of non-target species during activities to reduce damage or threats to human safety caused by geese is expected to be extremely low to non-existent. No non-target species have been taken during goose damage management actions previously. WS will continue to monitor annually the take of non-target species to ensure program activities or methodologies used in goose damage management do not adversely impact non-targets. WS' activities are not likely to adversely affect the viability of any wildlife populations from damage management activities.

VI. ALTERNATIVES THAT WERE FULLY EVALUATED

The following four alternatives were developed to respond to the issues. A detailed discussion of the effects of the alternatives on the issues is described in the EA; below is a summary of the alternatives.

Alternative 1 – Integrated Wildlife Damage Management Program (Proposed Action/No Action)

The proposed action would continue the current program of employing an integrated damage management approach using effective methods, as appropriate, to reduce conflicts associated with geese. An integrated damage management strategy would be recommended and used, encompassing the use of practical and effective methods of preventing or reducing damage while minimizing harmful effects of damage management measures on people, other species, and the environment. Under this alternative, WS would provide both technical assistance and operational damage management services. Non-lethal methods would be given first consideration in the formulation of each damage management strategy, and would be recommended or implemented when practical and effective before recommending or implementing lethal methods. However, non-lethal methods would not always be applied as a first response to each damage problem. The most appropriate response could often be a combination of non-lethal and lethal methods, or there could be instances where application of lethal methods alone would be the most appropriate strategy.

Alternative 2 – Technical Assistance Only

This alternative would only allow WS to provide technical assistance and make recommendations to individuals or agencies requesting goose damage management in Mississippi. Technical assistance by WS would place the immediate burden of operational damage management work on other federal, state, or county agencies, private businesses, and property owners. Assistance from those entities may or may

not be available. Technical assistance would occur by providing interested cooperators with information and technical advice on the use of methods available to alleviate or prevent goose damage.

Alternative 3 – Non-lethal Canada Goose Damage Management Only by WS

Under this alternative, only non-lethal management approaches would be used or recommended by WS. Both technical assistance and operational damage management services would be provided using non-lethal methods to resolve requests for assistance. Requests for lethal wildlife damage management services would be referred to other entities.

Alternative 4 - No WS' Program

This alternative would result in no assistance from WS in reducing goose damage in Mississippi. WS would provide no technical assistance or operational damage management services. WS would not respond to any requests for goose damage management assistance and would refer all requests to other government entities, local animal control agencies, or private businesses or organizations. Assistance may or may not be available from any of those entities. Damage management methods could be implemented by resource owners, private businesses, or other entities.

VII. ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Additional alternatives were also evaluated but not considered in detail in the EA. The alternatives analyzed but not in detail include:

- **Non-lethal Methods Implemented Before Lethal Methods**
- **Trap and Relocate**
- **Use of Lethal Methods Only**

VIII. DECISION AND RATIONALE

Based on the analyses of the issues and the alternatives to address those issues in the EA, including individual and cumulative impacts of those alternatives, the following decision has been reached:

Decision

I have carefully reviewed the EA prepared for this proposal and the input from the public involvement process. I find the proposed program to be environmentally acceptable, addressing the issues and needs while balancing the environmental concerns of management agencies, landowners, advocacy groups, and the public. The analyses in the EA adequately addresses the identified issues which reasonably confirm that no significant impact, individually or cumulatively, to wildlife populations or the quality of the human environment are likely to occur from the proposed action, nor does the proposed action constitute a major federal action. Therefore, the analysis in the EA remains valid and does not warrant the completion of an Environmental Impact Statement.

Based on the EA, the issues identified are best addressed by selecting Alternative 1 (Proposed Action/No Action) and applying the associated mitigation measures discussed in Chapter 3 of the EA. Alternative 1 successfully addresses (1) goose damage management using a combination of the most effective methods and does not adversely impact the environment, property, and/or non-target species, including threatened and endangered species; (2) it offers the greatest chance of maximizing effectiveness and benefits to resource owners and managers while minimizing cumulative impacts on the quality of the human environment that might result from the program's effect on target and non-target species populations; (3)

it presents the greatest chance of maximizing net benefits while minimizing adverse impacts to public health and safety; and (4) it offers a balanced approach to the issues of humaneness and aesthetics when all facets of those issues are considered. Further analysis would be triggered if changes occur that broaden the scope of goose damage management activities in Mississippi, that affect the natural or human environment, or from the issuance of new environmental regulations. Therefore, it is my decision to implement the proposed action (Alternative 1) as described in the EA.

Finding of No Significant Impact

Based on the analyses provided in the EA, there are no indications that the proposed action (Alternative 1) will have a significant impact, individually or cumulatively, on the quality of the human environment. I agree with this conclusion and therefore, find that an Environmental Impact Statement should not be prepared. This determination is based on the following factors:

1. Goose damage management as conducted by WS in Mississippi is not regional or national in scope.

2. The proposed action would pose minimal risk to public health and safety. Risks to the public from WS' methods were determined to be low in a formal risk assessment (USDA 1997).

3. There are no unique characteristics such as park lands, prime farm lands, wetlands, wild and scenic areas, or ecologically critical areas that would be significantly affected. Built-in mitigation measures that are part of WS' standard operating procedures and adherence to laws and regulations will further ensure that WS' activities do not harm the environment.

4. The effects on the quality of the human environment are not highly controversial. Although there is some opposition to wildlife damage management, this action is not highly controversial in terms of size, nature, or effect.

5. Based on the analysis documented in the EA and the accompanying administrative file, the effects of the proposed damage management program on the human environment would not be significant. The effects of the proposed activities are not highly uncertain and do not involve unique or unknown risks.

6. The proposed action would not establish a precedent for any future action with significant effects.

7. No significant cumulative effects were identified through this assessment. The EA analyzed cumulative effects of WS' goose damage management on target and non-target species populations and concluded that such impacts were not significant for this or other anticipated actions to be implemented or planned within the State of Mississippi.

8. The proposed activities would not affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places, nor would they likely cause any loss or destruction of significant scientific, cultural, or historical resources.

9. WS has determined that the proposed program would not adversely affect any federal or state listed threatened or endangered species. This determination is based upon concurrence from the USFWS that the program will not likely adversely affect any threatened or endangered species in Mississippi.

10. The proposed action would be in compliance with all federal, state, and local laws.

11. No significant cumulative effects were identified by this assessment or other actions implemented or planned within the area.

Rationale

The rationale for this decision is based on several considerations. This decision takes into account public comments, social/political and economic concerns, public health and safety, and the best available science. The foremost considerations are that: 1) goose damage management will only be conducted by WS at the request of landowners/managers, 2) management actions are consistent with applicable laws, regulations, policies and orders, and 3) no adverse impacts to the environment were identified in the analysis. As a part of this Decision, the WS program in Mississippi will continue to provide effective and practical technical assistance and direct management techniques that reduce damage.

Copies of the EA are available upon request from USDA/APHIS/WS, P.O. Drawer FW, Mississippi State, Mississippi, 39762 or by visiting the APHIS website at http://www.aphis.usda.gov/wildlife_damage/nepa.shtml.

Charles S. Brown, Eastern Regional Director
USDA/APHIS/WS

4/3/08
Date

Literature Cited:

The Wildlife Society. 1992. Conservation policies of The Wildlife Society: A stand on issues important to wildlife conservation. The Wildlife Society, Bethesda, Md. 24pp.

USDA. 1997 (revised). Animal Damage Control Program - Final Environmental Impact Statement – Revised October 1997. USDA/APHIS/WS-Operational Support Staff, 4700 River Road, Unit 87, Riverdale, MD 20737.

APPENDIX A

RESPONSES TO COMMENTS ON THE ENVIRONMENTAL ASSESSMENT: REDUCING CANADA GOOSE DAMAGE THROUGHOUT THE STATE OF MISSISSIPPI

Comment 1 – Vagueness of damage assessment procedures and methods

As described in section 3.1.1.2 of the EA, WS uses a decision model based on a publication by Slate et al. (1992) which involves evaluating each request for assistance, taking action, and evaluating and monitoring results of the actions taken. The published article provides more detail on the processes used in the WS Decision Model. WS' Final Environmental Impact Statement (FEIS) (USDA 1997), to which the EA is tiered, provides more detail and examples of how the model is used. WS' personnel use the Decision Model to develop the most appropriate strategy to reduce damage and to reduce potential detrimental environmental effects from damage management actions based on individual requests for assistance.

In the EA, WS addresses damage that Canada geese cause in Mississippi and the methods that are currently available to reduce or prevent damage from occurring and to reduce threats to human safety. The need for action is discussed in Chapter 1 of the EA with the methods available for use discussed in Chapter 3 and in Appendix B of the EA. Examples of goose damage management projects are discussed in section 3.1.1.6 of the EA. WS' Decision Model allows WS to adapt management activities to the species and damage occurring with consideration for human safety, non-targets, and potential environmental issues. WS describes damage associated with geese across four resource categories in the EA. Damage is further defined in the U.S. Fish and Wildlife Services FEIS for the management of resident goose population which the EA discusses in section 1.5.2. Damage attributable to Canada geese is fairly recognizable and assessed based on the presence of geese at the damage site, type of damage occurring, and the availability of evidence linking geese to damage or the threat of damage. In the case of human safety from potential disease transmission, WS clearly states in section 1.3.2.1 of the EA the difficulties of linking disease transmission between geese and humans. However, the concern for human safety associated with goose feces in areas where humans frequent is valid based on the potential for transmission to occur. Therefore, linking geese to damage occurring is readily accomplished through standard assessment of the request for assistance and through site visits which are accomplished through WS' Decision Model.

Comment 2 – Specific damage management recommendations vague

WS' methods and standard operating procedures are discussed in section 3.1.1.5, section 3.1.1.6, section 3.3, and section 3.4 of the EA and are discussed in further detail in Appendix B of the EA. Specific examples of WS' activities in Mississippi are provided in section 3.1.1.6 of the EA. The EA is also tiered to WS' programmatic FEIS (See section 1.2.1) which further describe those methods available to resolve or prevent goose damage and to prevent threats to human safety. Methods available for conducting damage management are also discussed in detail in the USFWS FEIS on managing resident goose populations discussed in section 1.5.2.

WS' addresses specific damage management recommendations in the EA through the alternatives. The proposed alternative describes an integrated damage management program which is described in detail in section 3.1.1 of the EA. An integrated approach to resolving requests for damage was specifically discussed in section 3.1.1.1 of the EA which describes how all available methods could be applied, individually or in combination, to resolve requests for assistance based on assessing damage through WS' Decision Model. The application of the decision model as part of recommending damage methods was

discussed in section 3.1.1.2 of the EA. Technical assistance, direct damage management assistance, educational efforts, and research and development, as components of an integrated damage management program, were discussed specifically in section of 3.1.1.3 of the EA. WS' incorporation of the community based decision making approach to managing goose damage as part of proposed action was discussed in the EA in section 3.1.1.4. Methods available for use by WS or recommended by WS were discussed in section 3.1.1.5 in the EA.

Specific damage management recommendations would not add to the analysis in the EA since WS' addresses methods in the EA individually and collectively to determine potential impacts. To comply with CEQ regulations, agencies are encouraged to tier their EAs to previously prepared EISs and to incorporate material by reference in order to reduce the volume of NEPA documents (40 CFR 1502.20, 40 CFR 1502.21). The EA is also tiered to WS' FEIS to comply with CEQ regulations to reduce bulk and excessive paperwork (Eccleston 1995)[4].

Since individual wildlife damage management actions can be categorically excluded from further analysis according to APHIS regulation for implementing the National Environmental Policy Act, the purpose of the EA as described in section 1.2 of the EA is to 1) facilitate planning, interagency coordination and the streamlining of program management; 2) clearly communicate to the public the analysis of individual and cumulative impacts of program activities; and 3) evaluate and determine if there are any potentially significant or cumulative adverse affects from the proposed program. The EA was prepared to consider potential individual and cumulative effects associated with managing geese in Mississippi using all available methods. The EA evaluates the use of all methods individually and cumulatively which allows for a more comprehensive and less redundant analysis compared to comparing methods applied to specific damage requests.

Comment 3 – Lack of a description of how a damage management program is applied

In section 3.1 of the EA, WS describes the alternatives in detail, including the methods, procedures, and recommendations that would be available for use to manage damage caused by geese in Mississippi under those alternatives. The integrated approach to managing damage caused by wildlife is further discussed in section 3.1.1.1 of the EA, including a discussion of preventative and corrective damage management. Section 3.1.1.2 of the EA further describes the decision making process used by WS when addressing requests for assistance to manage damage caused by Canada geese in Mississippi. Under section 3.1.1.3 of the EA, WS describes strategies employed through an integrated approach to addressing damage caused by geese in Mississippi, including technical assistance recommendations, direct operational assistance, educational efforts, and the research and development of effective damage management methods. WS' further describes decision making based on community input in section 3.1.1.4. Methods available for use to address goose damage management in Mississippi are described 3.1.1.5 with examples of goose damage management projects provided in section 3.1.1.6.

WS' Decision Model is the implementing mechanism for a damage management program that is adapted to an individual damage situation that allows for the broadest range of methods to be used to address damage or the threat of damage in the most effective, most efficient, and mostly environmentally conscious way available. When a request for assistance is received to resolve or prevent damage caused by geese, WS conducts site visits to assess damage or threats, identifies the cause of the damage, and applies the decision model described by Slate et al. (1992) and in WS' programmatic FEIS to apply methods to resolve or prevent damage using those methods available. The WS' process for providing assistance is clearly defined by WS' Decision Model under the proposed action in the EA.

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[4]Eccleston, C. 1995. Determining when an analysis contains sufficient detail to provide adequate NEPA coverage. Federal Facilities Environmental Journal, Summer pp. 37-50.

Comment 4 – Need for Action Not Demonstrated

WS addresses the need for action to protect human safety, agricultural resources, property, and natural resources in section 1.3 of the EA. Information more specific to damage in Mississippi can be found in section 1.3.2, section 3.1.1.6, and Table 3 of the EA. The examples provided in the EA indicate the extent to which damage can occur and demonstrates that geese are capable of causing damage across a broad range of resources along with posing direct threats to human safety.

The comment specifically identifies WS' discussion of human safety threats, particularly threats associated with zoonotic diseases, as being overstated and unsupported in the EA. Birds play an important role in the transmission of zoonotic diseases where humans may come into contact with fecal droppings of birds. The threats geese pose to human safety is specifically discussed in section 1.3.2.1 of the EA. The absence of records of disease occurrence in Mississippi does not mean absence of risk but may only mean lack of reliable research in this area. Few studies are available on the occurrence and transmission of zoonotic diseases in wild birds. Study of this issue is complicated by the fact that some disease-causing agents associated with birds (e.g., Salmonella), may also be contracted from other sources. WS' works with cooperators on a case-by-case basis to assess the nature and magnitude of the wildlife conflict including providing information on the limitations about what we know regarding health risks associated with geese. It is the choice of the individual cooperator to tolerate the potential health risks or to seek to reduce those risks. WS' clearly and repeatedly states in section 1.3.2.1 of the EA that the possibility of disease transmission from geese to humans is low but the potential exists for transmission since geese are known to harbor infectious diseases, particularly in feces. Where humans may contact feces, such as parks, industrial complexes, and golf courses the risk of disease transmission increases. Therefore, WS' makes no attempt to overstate the threat of disease transmission between humans and Canada geese in Mississippi.

Comment 5 - Broad Scope of the EA

The scope of the EA is discussed in section 1.7.4 and section 2.3.1 of the EA. WS has the discretion to determine the geographic scope of their NEPA analyses (Kleppe v Sierra Club, 427 U.S. 390, 414 (1976), CEQ 1508.25) and WS has determined that the scope of this EA is appropriate (Section 1.7.4 in the EA). Ordinarily, according to APHIS procedures implementing the National Environmental Policy Act (NEPA), individual wildlife damage management actions may be categorically excluded (7 CFR 372.5(c), 60 FR 6000-6003). The intent of preparing the EA was to determine if the proposed action would potentially have significant cumulative impacts on the environment that would warrant the preparation of an Environmental Impact Statement or a finding of no significant impact. The EA addresses impacts for the entire State to analyze cumulative impacts to provide a better analysis than multiple EAs covering smaller zones.

Comment 6 – Incentives or disincentives of different management approaches should be spelled out

As stated in the EA, WS only provides assistance after a request has been received and a cooperative service agreement or other comparable document has been signed by WS and the requesting entity in which all methods used to address geese causing damage are agreed upon. The effectiveness of methods, including non-lethal and lethal methods available to manage damage caused by geese in Mississippi, was discussed in section 2.2.2 and section 4.1.2 of the EA. As stated in sections 4.1.2.1 and 4.1.2.2 of the EA, methods employed to manage goose damage, whether non-lethal or lethal, are often temporary with the duration dependent on many factors discussed in the EA. WS' employs only those methods as agreed upon by the requestor after available methods are discussed.

The comment incorrectly assumes that geese only return to an area where damage was occurring if lethal methods are used which creates a financial incentive to continue the use of only lethal methods. However, as stated throughout the EA, the use of non-lethal methods are also often temporary which could result in geese returning to an area where damage was occurring once those methods are no longer used. The comment correctly states that geese will return if suitable habitat continues to exist at the location where damage was occurring and goose densities are sufficient to occupy all available habitats. Therefore, any reduction or prevention of damage from the use of methods addressed in the EA will be temporary if habitat conditions continue to exist. As addressed in the EA, WS' primarily receives requests to reduce or prevent damage caused by resident Canada geese in Mississippi. Therefore, any method that disperses or removes geese from areas will only be temporary if habitat continues to exist the following year when geese return to nest. Dispersing geese using pyrotechnics, repellents, border collies, or any other non-lethal method addressed in the EA often require repeated application to discourage geese which increases costs, moves geese to other areas where they could cause damage, and are temporary if habitat condition remain unchanged. Dispersing and the relocating of geese could be viewed as moving problem geese from one area to another which would require addressing damage caused by those geese at another location. WS' recommendation of or use of techniques to modifying existing habitat or making areas unattractive to geese was addressed in the EA in section 3.1 and Appendix B. Therefore, WS' objective is to respond to request for assistance with the most effective methods and to provide for the long-term solution to the problem using WS' Decision Model to adapt methods in an integrated approach to managing goose damage that is agreed upon by the cooperator. WS' legislative authority to manage wildlife damage was also addressed in section 1.8.1.1 of the EA.

Comment 7 – EA inaccurately characterizes lethal methods as non-lethal

The comment incorrectly states that WS is misleading the public by characterizing non-lethal methods, specifically live-capture and tranquilizing methods, when those methods may be employed followed by euthanasia. However, WS correctly addresses methods in the EA as lethal or non-lethal based on the initial fate of geese when those methods are used. WS' clearly states in the EA that non-lethal methods may be employed to live-capture geese and that those geese may be euthanized using methods described in section 3.1.1.5 and Appendix B of the EA. Under the summary of the proposed action in section 1.4 of the EA, WS clearly states that lethal methods employed as part of the proposed action may include live capture followed by euthanasia. Under the alternatives in the EA in sections 3.1.1 and 3.1.2, WS clearly states lethal methods could include live-capture followed by euthanasia. Further, under the description of methods in section 3.1.1.5 and Appendix B of the EA, WS also states that euthanasia may occur after birds are live-captured using non-lethal methods. WS' analysis of the effects on the goose population in section 4.1.1 of the EA fully considers as part of WS' take those geese that are live-captured and then euthanized. All euthanasia methods available for use by WS are discussed in the EA in section 3.1.15 and Appendix B. WS clearly states in the EA that euthanasia may occur and describes those methods that would be used to euthanize geese. Therefore, WS makes no attempt to mislead the public nor understates the impact on animal welfare since all euthanasia methods available for use are discussed and the take of geese using lethal methods is evaluated in the EA. The comment also incorrectly assumes all live-captured geese will be euthanized. Limited relocation could occur as described in section 3.2.2 of the EA when the entity requesting relocation of the geese obtains the appropriate permits and permissions to do so.

Comment 8 – Justification for an Increase in Illegal Actions to Manage Geese

The illegal use of pesticides to kill or harm wildlife has occurred when individuals feel compelled to address damage situations caused by wildlife where the level of assistance to resolve the damage has been perceived to be insufficient. In the absence of WS' assistance or if WS was constrained to the use of certain methodologies which may be less effective in resolving damage or where habituation to methods

used occurs quickly, "frustrated" individuals may resort to the use of illegal pesticides to solve their wildlife damage situation due to the their perception that the level of assistance needed to resolve their damage situation is insufficient. Currently, WS uses an integrated damage management approach that incorporates several methodologies that increases effectiveness and decreases the likelihood of habituation which allows methods to be more effective for a longer period of time. In the absence of WS' assistance, the number of individuals that may become "frustrated" and resort to the illegal use of pesticides will likely increase due to the lack of assistance to manage their individual wildlife damage situation. WS' cites occurrences in the EA where the public has resorted to illegal methods to resolve wildlife damage in section 4.1.1.2, section 4.1.1.3, and section 4.1.1.4 including the potential for increased risks to non-target wildlife in section 4.1.5.2, section 4.1.5.3, and section 4.1.5.4.

Comment 9 - Effectiveness of Proposed Action

An analysis of cost-effectiveness in many bird damage management situations is difficult or impossible to determine because the value of benefits may not be readily calculable and personal perspectives differ about damage. For example, the potential benefit of eliminating geese from defecating on public beaches could reduce incidences of illness among an unknown number of users. Since some bird-borne diseases are potentially fatal, or severely debilitating, the value of the benefit may be high. However, no studies of disease problems with and without bird damage management have been conducted[5], and, therefore, the number of cases prevented because of goose damage management are not possible to estimate. Also, it is rarely possible to conclusively prove that geese are responsible for individual disease cases or outbreaks which were discussed in the EA.

As part of an integrated approach to managing goose damage, WS' has the ability to adapt methods to damage situations to effectively reduce or prevent damage from occurring. Under the proposed integrated approach, all methods, individually or in combination, could be employed as deemed appropriate through WS' Decision Model to address requests for assistance. WS' objective when receiving a request for assistance under the proposed action is to reduce damage and threats to human safety or to prevent damage from occurring using an integrated approach to managing goose damage (see section 3.1.1.1 of the EA). Therefore, under the proposed action, WS would employ methods adaptively to achieve that objective.

In regards to the effectiveness of methods used, Avery (2002)[6] cited studies where lethal damage management did reduce losses to crops (Elliott 1964, Larsen and Mott 1970, Palmer 1970, Plesser et al. 1983, Tahon 1980, Glahn et al. 2000 as cited in Avery 2002) and posed little danger to non-target species (Glahn et al. 2000). Avery (2002) also stated that it seems reasonable that local, short-term crop protection can be achieved through reduction in depredating bird populations, however, quantification of the relationship between the numbers of birds killed and the associated reduction in crop damage is lacking. Avery (2002) only states that studies demonstrating economic benefit from the use of lethal methods are lacking but does not state that lethal methods to resolve damage are not economically effective.

CEQ does not require a formal, monetized cost-benefit analysis to comply with NEPA (40 CFR 1508.14) and consideration of this issue is not essential to making a reasoned choice among the alternatives being considered. USDA (1997, Revised, Appendix L) states:

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[5] These questions and relationships are outside the scope of this EA and are more appropriate as research projects. We have used the best information available to prepare the analysis in the EA (40 CFR 1502.22).

[6] Avery, M. L. 2002. Behavioral and ecological considerations for managing bird damage to cultivated fruit. Pp. 467-744 *in* D.J. Levey, W.R. Silva, and M. Galetti, eds. Seed Dispersal and Frugivory: Ecology and Conservation, Oxford Press.

"Cost effectiveness is not, nor should it be, the primary goal of the APHIS WS program. Additional constraints, such as the environmental protection, land management goals, and others, are considered whenever a request for assistance is received. These constraints increase the cost of the program while not necessarily increasing its effectiveness, yet they are a vital part of the APHIS WS Program."

WS is aware of concerns that federal bird damage management should not be allowed until economic losses become unacceptable. However, this type of policy would be inappropriate to apply to public health and safety situations. In addition, even though some losses can be expected and tolerated by agriculture producers and property owners, WS has the legal responsibility and direction to respond to requests for goose damage management, and it is program policy to aid each requester to minimize losses. Furthermore, in a ruling for Southern Utah Wilderness Alliance, et al. vs. Hugh Thompson, Forest Supervisor for the Dixie NF, et al., the court denied plaintiffs' motion for preliminary injunction. In part the court found that it was only necessary to show that damage from wildlife is threatened, to establish a need for wildlife damage management (U.S. District Court of Utah 1993).

Comment 10 - Field Use of Most Up-to-date Methods

WS uses trained, professional employees to conduct goose damage management programs in Mississippi and continues to train employees on newly developed and available techniques. The NWRC functions as the research arm of WS by providing scientific information and development of methods for wildlife damage management that are effective and environmentally responsible. NWRC scientists work closely with WS' state programs, wildlife managers, researchers, and others to develop and evaluate wildlife damage management techniques.

The analysis in the EA is based on the best information and methods available, or that are being developed but not yet available. As mentioned numerous times, WS proposed action in the EA would allow methods to be used in an integrated approach and that WS' Decision Model would allow WS to develop management strategies that alleviate damage in the most cost effective manner possible while minimizing the potentially harmful risks to humans, pets, non-target species, and the environment. Chapter 2 and Appendix B of the EA discuss products that are currently available as well as products that may be considered should they become available at a future time.

The comment specifically references nicarbazin which was addressed in Appendix B of the EA. As stated in the EA, nicarbazin is an EPA registered reproductive inhibitor registered to reduce egg production and viability in Canada geese at site specific locations in highly populated urban areas. WS also states in the EA that nicarbazin is not currently registered for use in Mississippi. If nicarbazin becomes available for use in Mississippi, WS will further evaluate the method as part of the selected alternative.

Comment 11 - Missing Alternative

The comment indicated that WS should have evaluated an alternative whereby all non-lethal methods available should be employed prior to the use of lethal methods. An alternative that would employ all non-lethal methods before lethal methods was considered in the EA but was not analyzed in detail in section 3.2.1 of the EA. WS' proposed alternative as outlined in the EA is similar to a non-lethal before lethal alternative because WS encourages and considers the use of non-lethal methods before lethal methods (WS Directive 2.101). Adding a non-lethal before lethal alternative and the associated analysis would not add additional information to the analysis for the public or decision maker. WS recognizes that the most effective approach to resolving wildlife damage is to use an integrated approach which uses several damage management methods (non-lethal and/or lethal) simultaneously or sequentially. If the requester is already using non-lethal methods or if the birds have habituated to scare tactics, repellents, or

other non-lethal dispersal techniques, WS would not consider continuing to implement those techniques because they have not proven effective in those situations. When evaluating methods for a damage situation, WS recognizes that some methods may be more or less effective, or applicable.

Comment 12 – Humaneness of Methods

The EA identifies humaneness as a major issue in the EA (section 2.2.4) and is addressed in relationship to the alternatives in section 4.1.4 of the EA. The humaneness of methods and actions was specifically addressed in section 4.1.4 of the EA. WS continues to evaluate existing and new methods for animal welfare and humaneness concerns. WS' mission is to reduce damage, not goose populations and provides funding annually to develop and bring to the field newly developed and more species specific and humane methods. As stated in the EA, people may perceive the humaneness of a method or an action differently and certain methods generally deemed as humane can be inhumane if used inappropriately. WS goal is to use methods as humanely as possible to effectively resolve requests for assistance to reduce damage and human safety.

While it is regrettable that wild animals die to alleviate damage in some situations, WS believes that if an animal death must occur, then it should occur with a minimum amount of distress and pain, in as short a period of time as practical, and with compassion. WS is trying to achieve a "balance" between the needs of people, recognizing that people are part of the environment, and animals while keeping issues like protection of the environment, economics, and humaneness in perspective. WS recognizes that animal welfare organizations are concerned that some methods used to manage wildlife damage may expose animals to pain and suffering. WS believes that humaneness of an action or management plan must not only consider the effects of the action on the wildlife but also on the people or other species that may be or are affected by wildlife. Ideally, such protection would be achieved through non-lethal means, but when non-lethal means are not practical or effective, lethal means may be the only way to accomplish such damage management.

Comment 13 – Stakeholder Involvement

The comment specifically addresses WS' discussion of the community based decision making process that was addressed in section 3.1.1.4 of the EA. In particular, the comment questions how the decision making process will ensure that local concerns about damage management activities will be considered before actions are taken.

Under a community based decision making process, WS' would provide information, demonstration, and discussion on all available methods to the appropriate representatives of the community for which services were requested to ensure a community based decision is made. By involving decision makers in the process, damage management actions can be presented to allow for decisions on damage management to involve those individuals that the decision maker(s) represents. As addressed in the EA, WS would provide technical assistance to the appropriate decision maker(s) to allow for information on damage management activities to be presented to those represented by the decision maker(s), including demonstrations and presentation by WS at public meetings to allow for involvement of the community. Requests for assistance to manage geese often originate from the decision maker(s) based on community feedback or from concerns about damage or threats to human safety. As representatives, the decision maker(s) are able to provide the information to local interests either through technical assistance provided by WS or through demonstrations and presentation by WS on goose damage management activities. This process allows decisions on goose damage management activities to be made based on local input.

In the case of private property owners, the decision maker is the individual that owns or manages the affected property. Private property decision makers were also discussed in the EA under section 3.1.1.4.

The decision maker has the discretion to involve others as to what occurs or does not occur on property they own or manage. Due to privacy issues, WS can not disclose cooperator information to others. Therefore, in the case of an individual property owner or manager, the involvement of others and to what degree others are involved in the decision making process is a decision made by that individual.

Comment 14 – Rationale not presented for Dismissed Issue

The comment questions the lack of rationale for not evaluating in detail the issue of the effects on human health from the consumption of geese donated for human consumption. In section 2.3.2 of the EA, WS specifically states that geese determined to be used for human consumption would be the responsibility of the entity selecting that option, including all legal responsibilities. Therefore, WS would have no direct involvement in the processing of the geese for human consumption nor would WS be responsible for the distribution to charitable organizations. Therefore, the issue was not considered in detail.